

NUCLEIC ACID SEQUENCES CODING  
FOR PROTEINS OF UNKNOWN  
STRUCTURE AND FUNCTION

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PARSE DISEASE GENES INTO  
DOMAIN-ENCODING REGIONSKNOWLEDGE-  
BASED PARSING  
METHODDOMAIN TRAPPING: EXPRESSION &  
BIOPHYSICAL CHARACTERIZATIONHIGH YEILD EXPRESSION, ISOTOPE  
ENRICHMENT, & PURIFICATIONSCREENING FOR NMR &  
CRYSTALLIZATION PROPERTIESANALYSIS OF PROTEIN STRUCTURE  
BY NMR & X-RAYSTERTIARY STRUCTURE HOMOLOGY  
SEARCH OF PROTEIN DATA BASEDATABASE  
OF EMPIRICAL  
PROPERTIESRELATIONAL  
DATABASESTRUCTURE/FUNCTION  
KNOWLEDGE BASEASSIGNMENT OF DOMAIN TO  
FOLD & FUNCTIONAL CLASS

FIG.1

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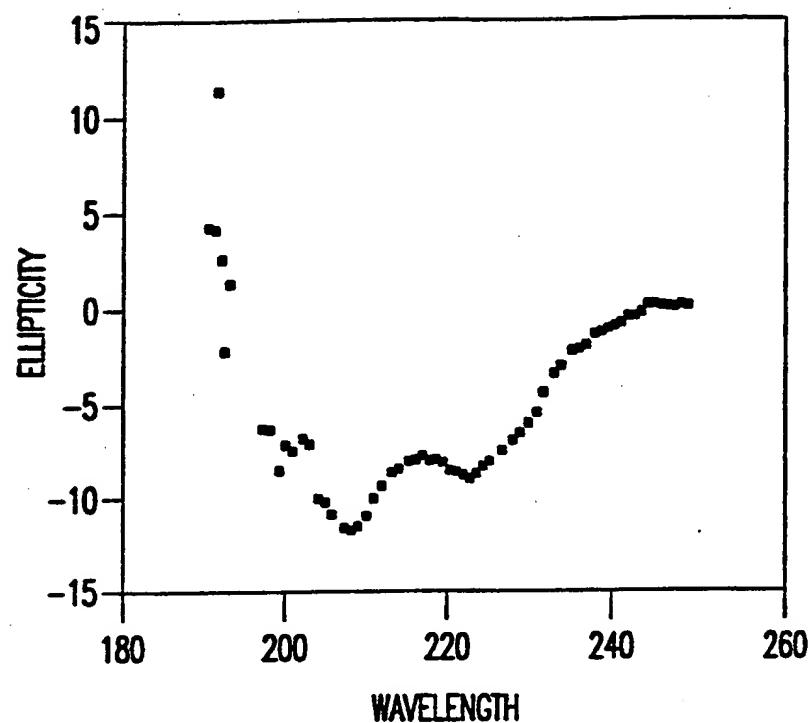


FIG.2A

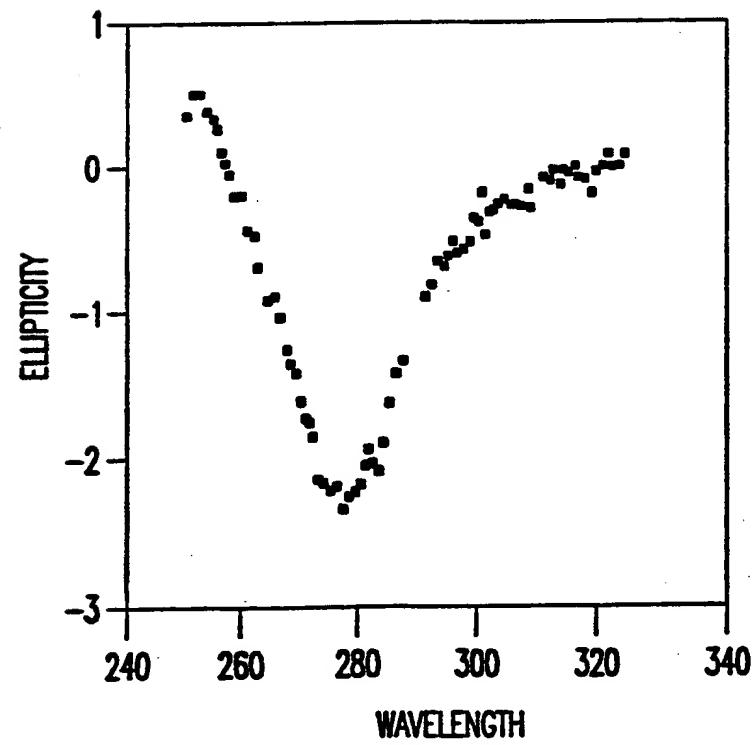


FIG.2B

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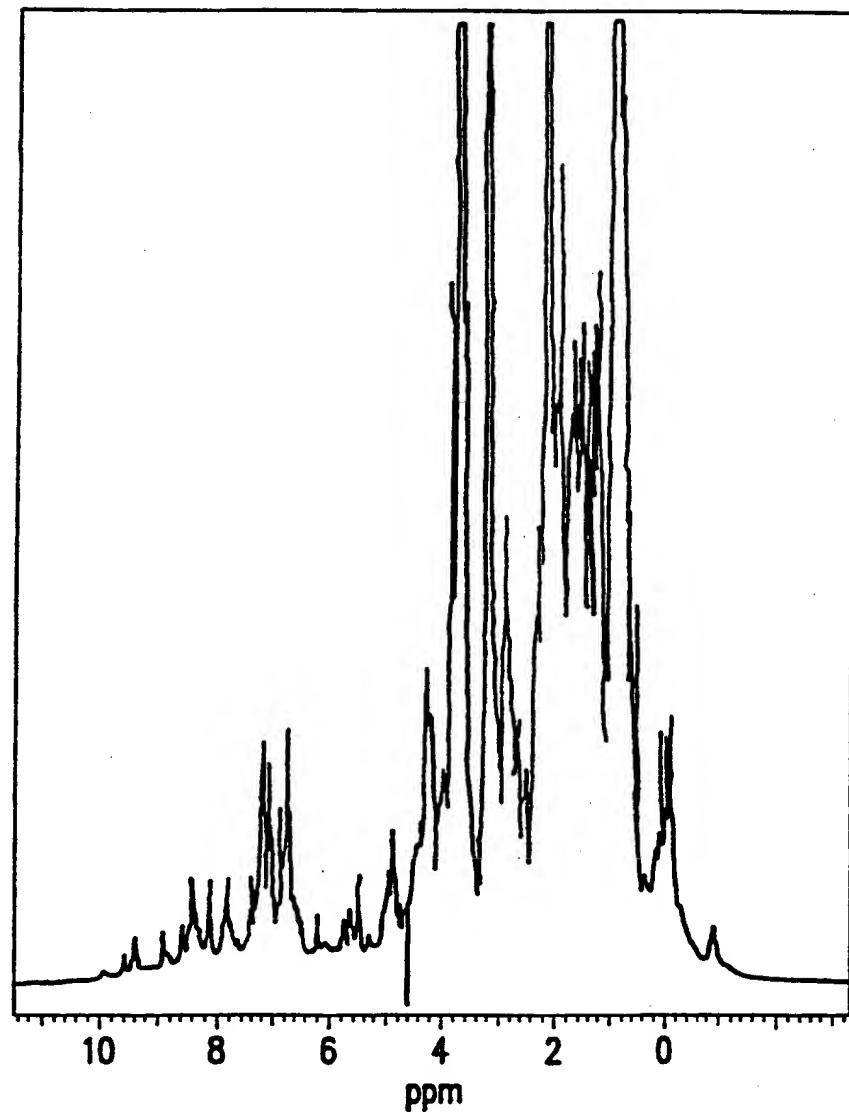


FIG.3

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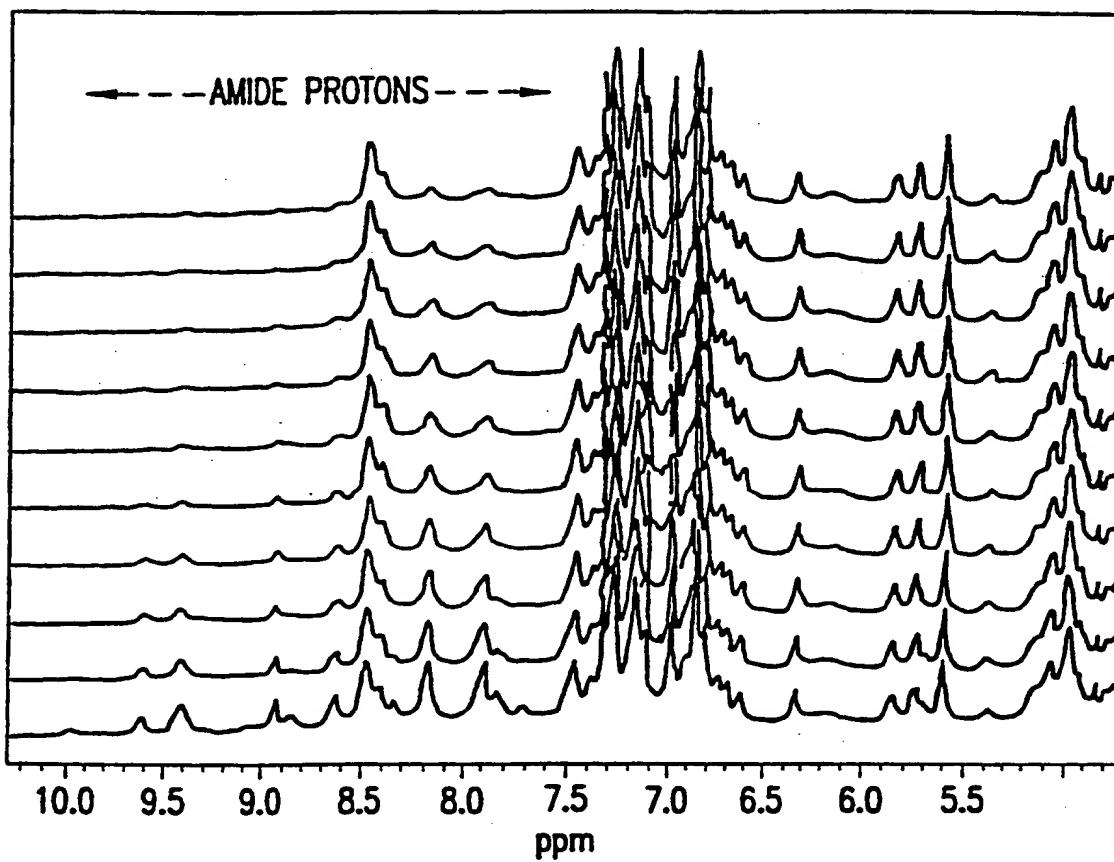


FIG.4

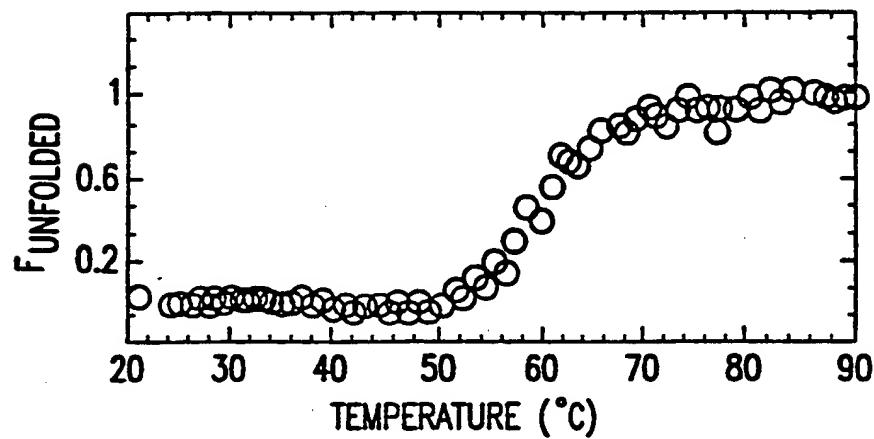
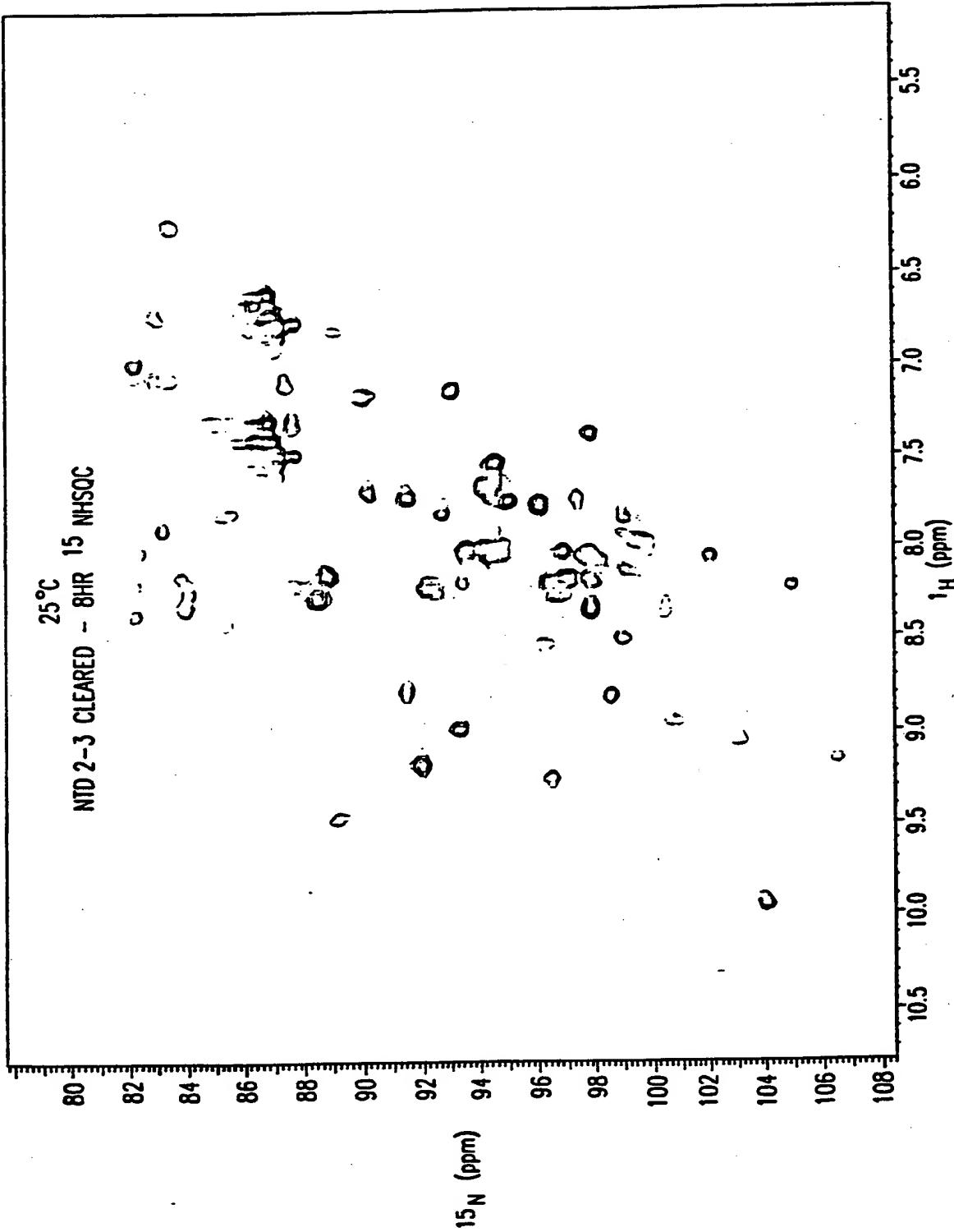


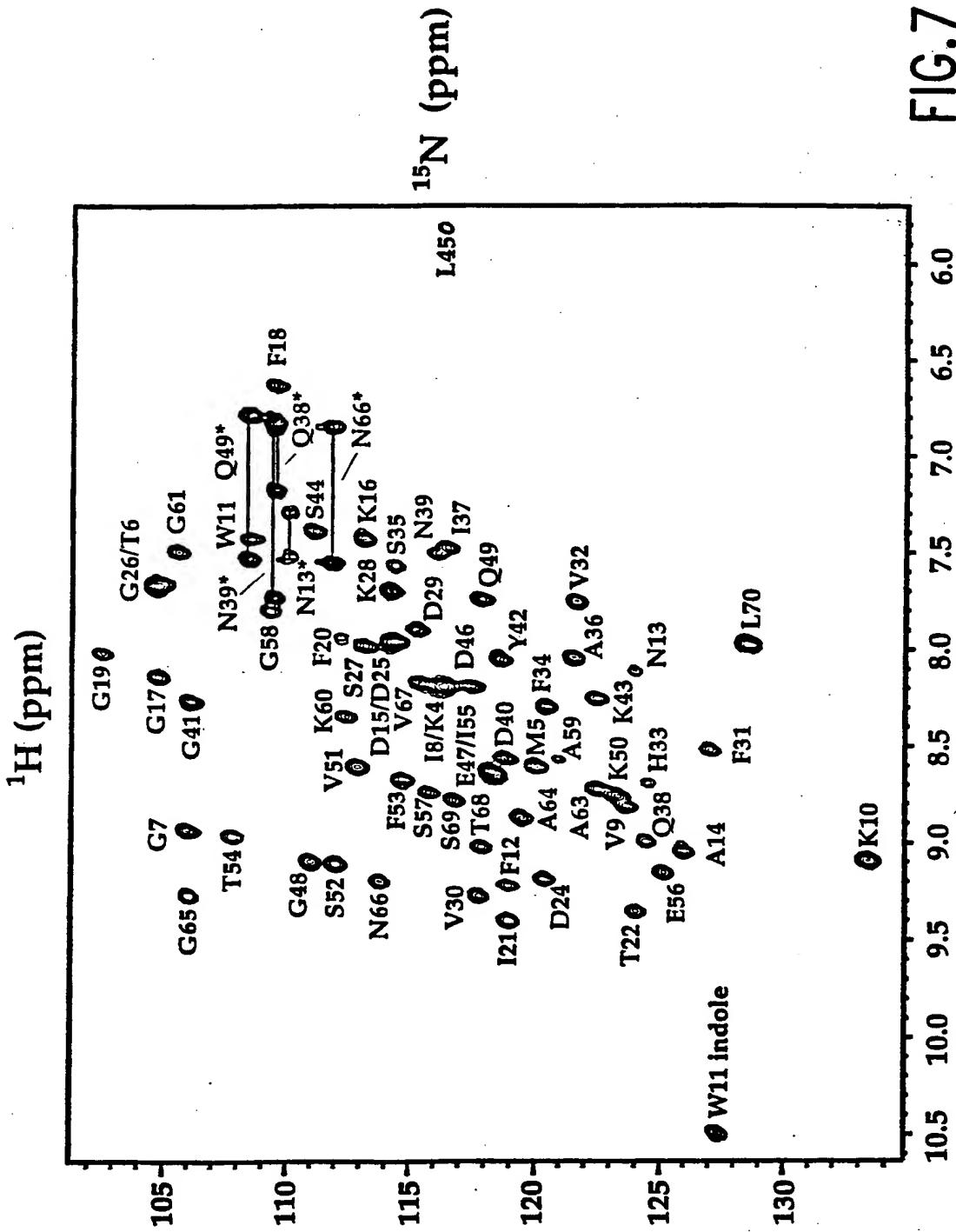
FIG.5

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FIG. 6



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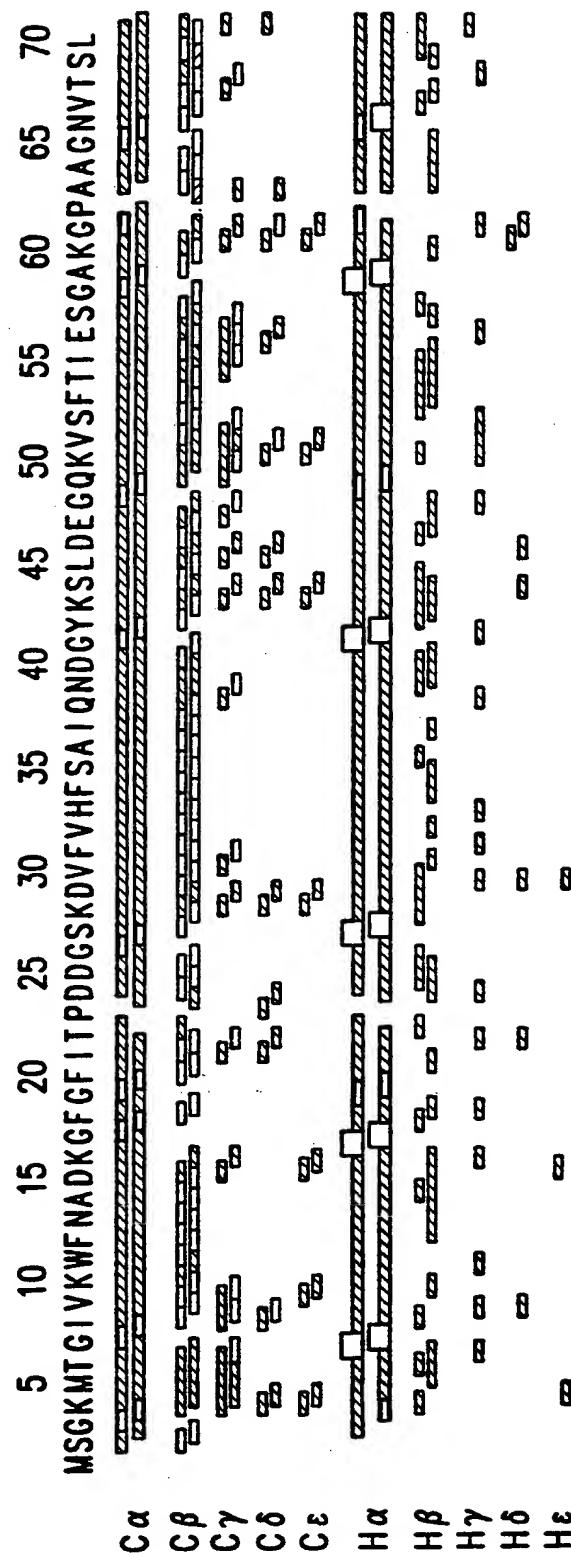


FIG. 8A



FIG. 8B

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## NOESY\_ASSIGN PROCESS

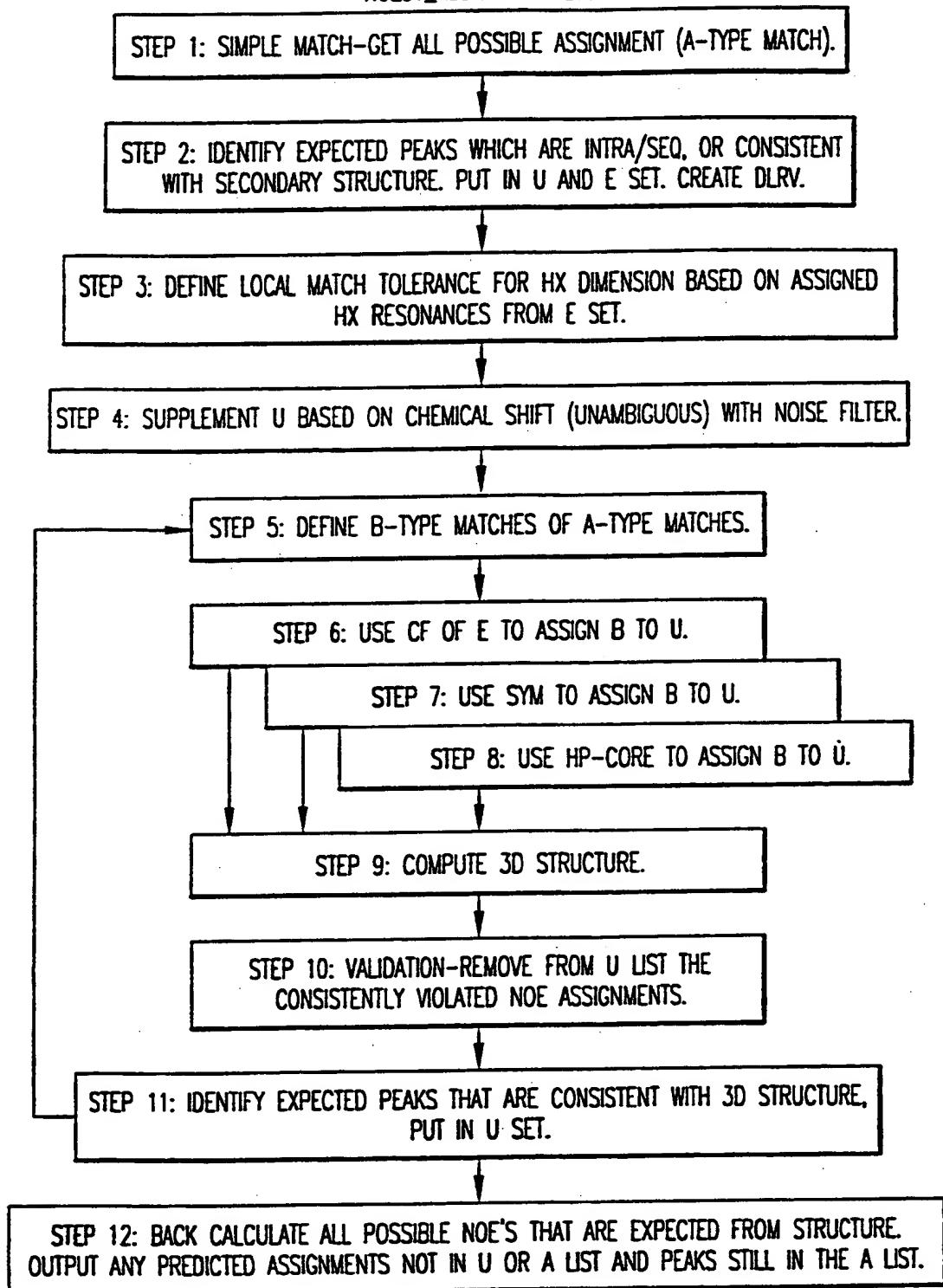


FIG.9

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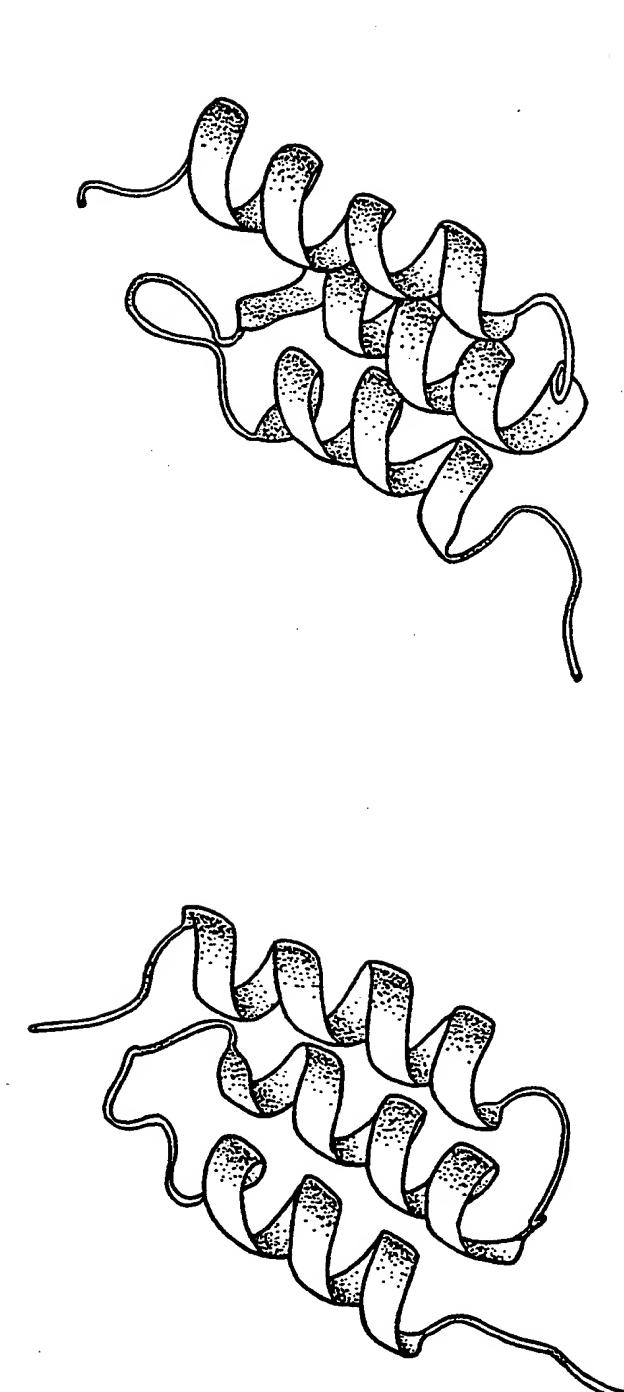


FIG. 10A

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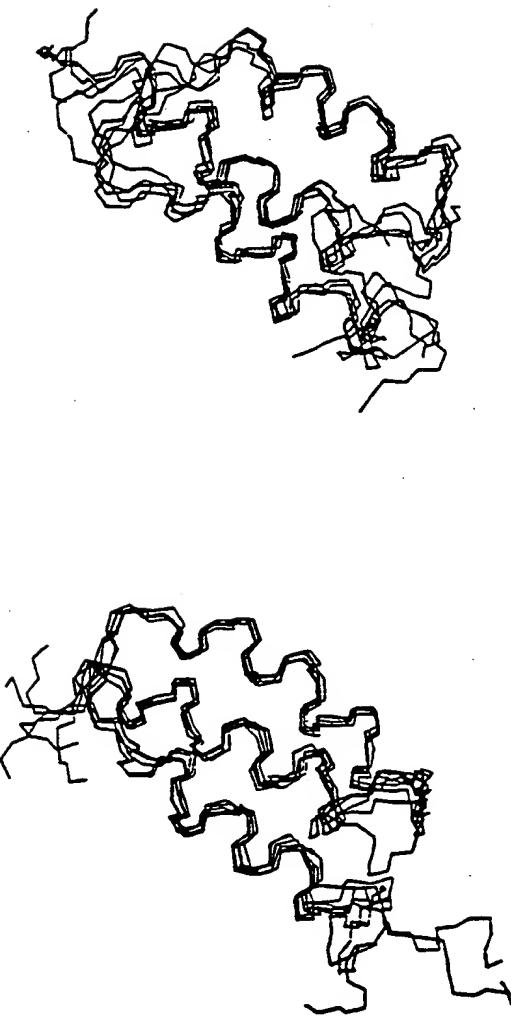


FIG. 10B

Manual Structure Analysis

Automated Structure Analysis

009744002 02080

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## Zdom: Automated Assignment Analysis

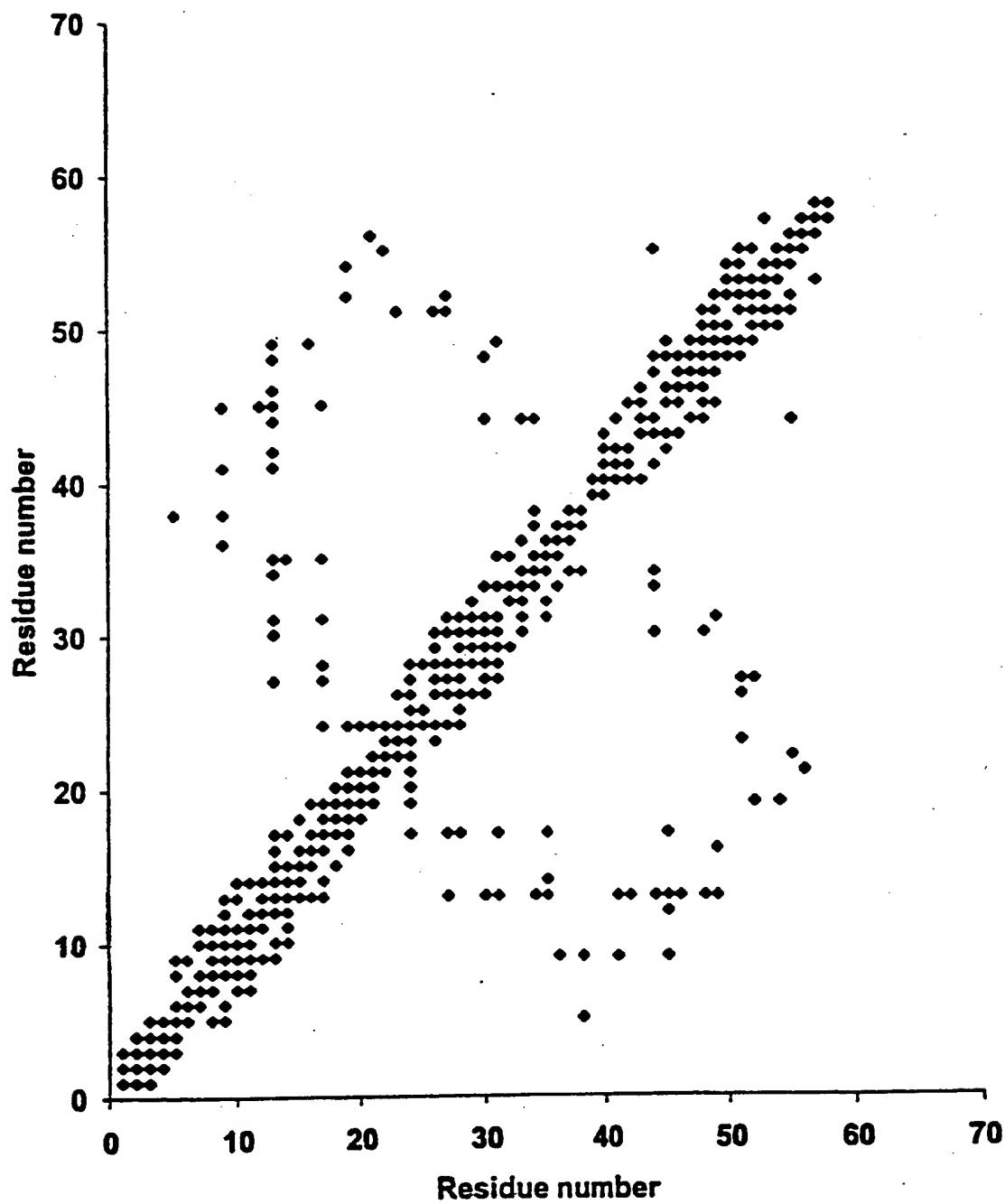


FIG.11

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## Zdom: AUTOMATED STRUCTURE ANALYSIS

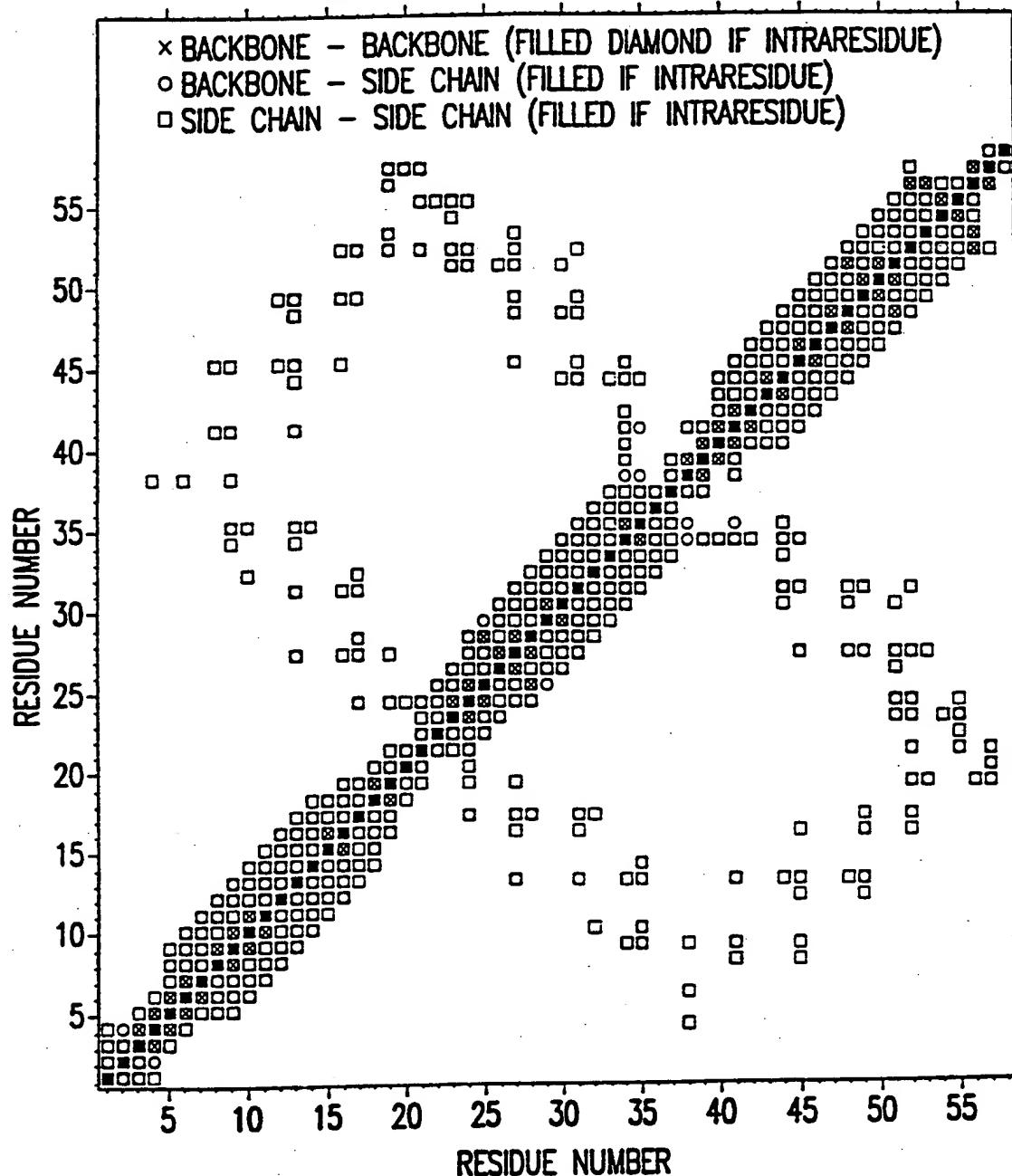


FIG.12

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## Zdom: AUTOMATED ANALYSIS-CONNECTIVITY MAP

0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

NN(i,i+1)      ——————  
 aN(i,i+1)      ——————  
 aN(i,i+3)      ——————  
 aβ(i,i+3)      ——————

3      0      1      2      3      4      5      6  
 0      1      2      3      4      5      6      7      8      9      0      1      2      3      4      5      6      7      8      9      0  
 NN(i,i+1)      ——————  
 aN(i,i+1)      ——————  
 aN(i,i+3)      ——————  
 aβ(i,i+3)      ——————

FIG. 13

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## Zdom: Manual Assignment Analysis

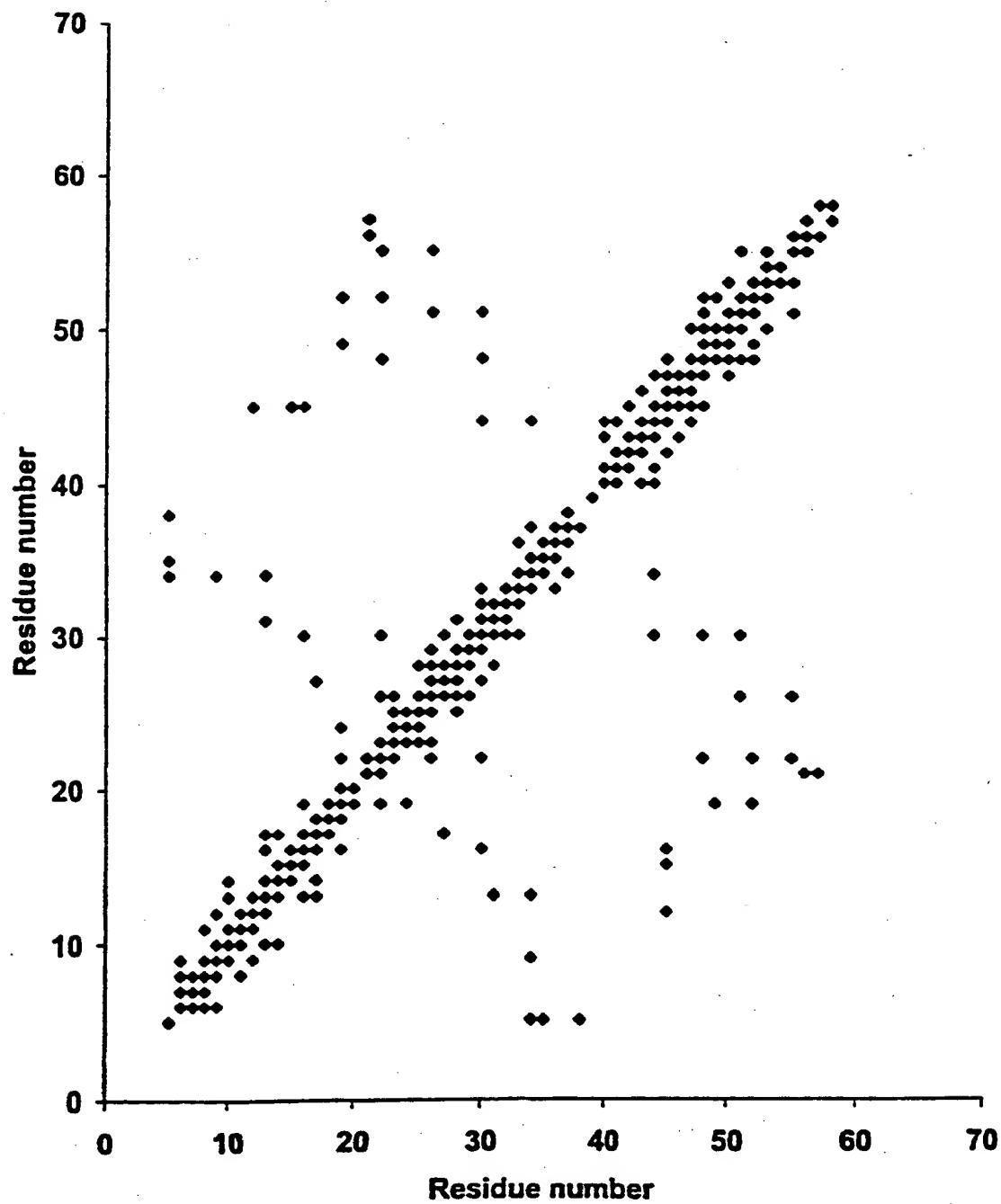


FIG.14

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## Zdom: MANUAL STRUCTURE ANALYSIS

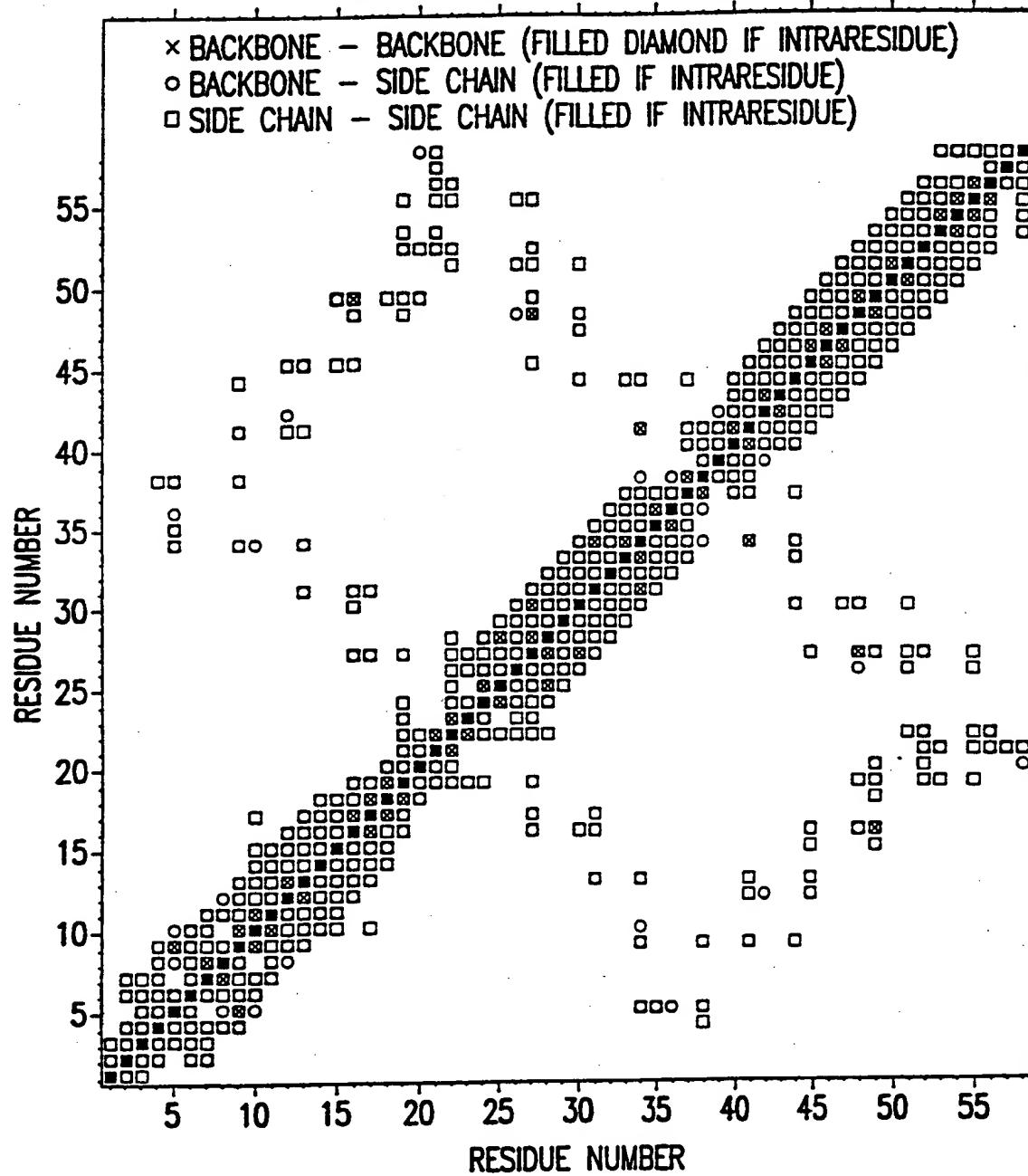


FIG.15

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## Zdom: AUTOMATED ANALYSIS-CONNECTIVITY MAP

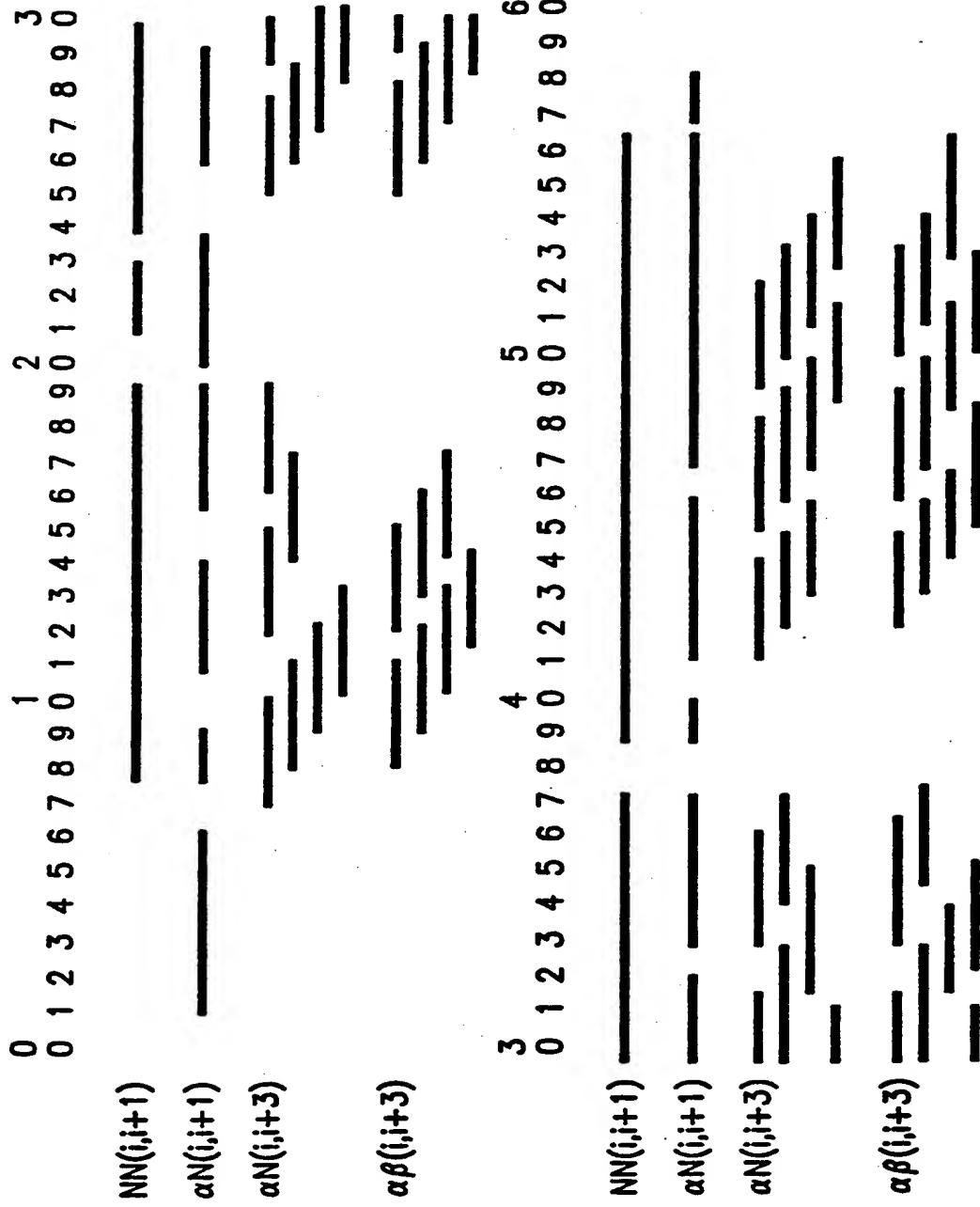
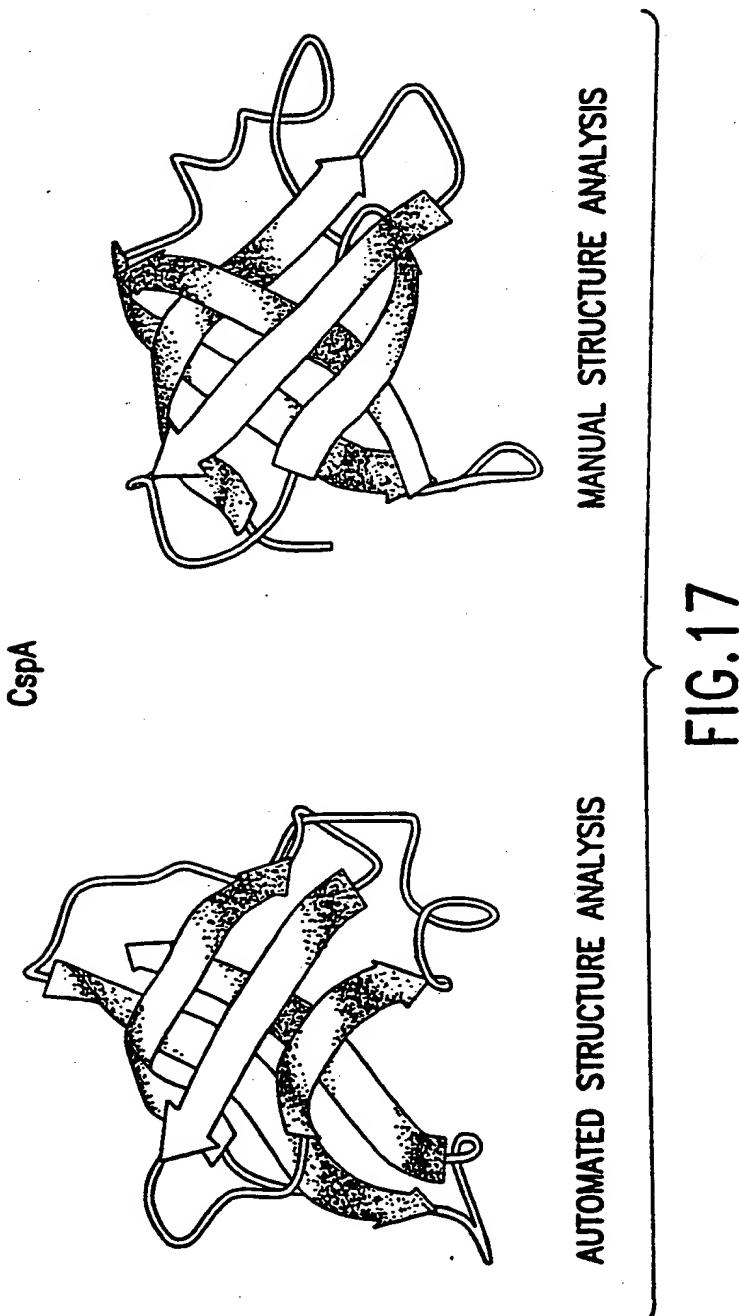
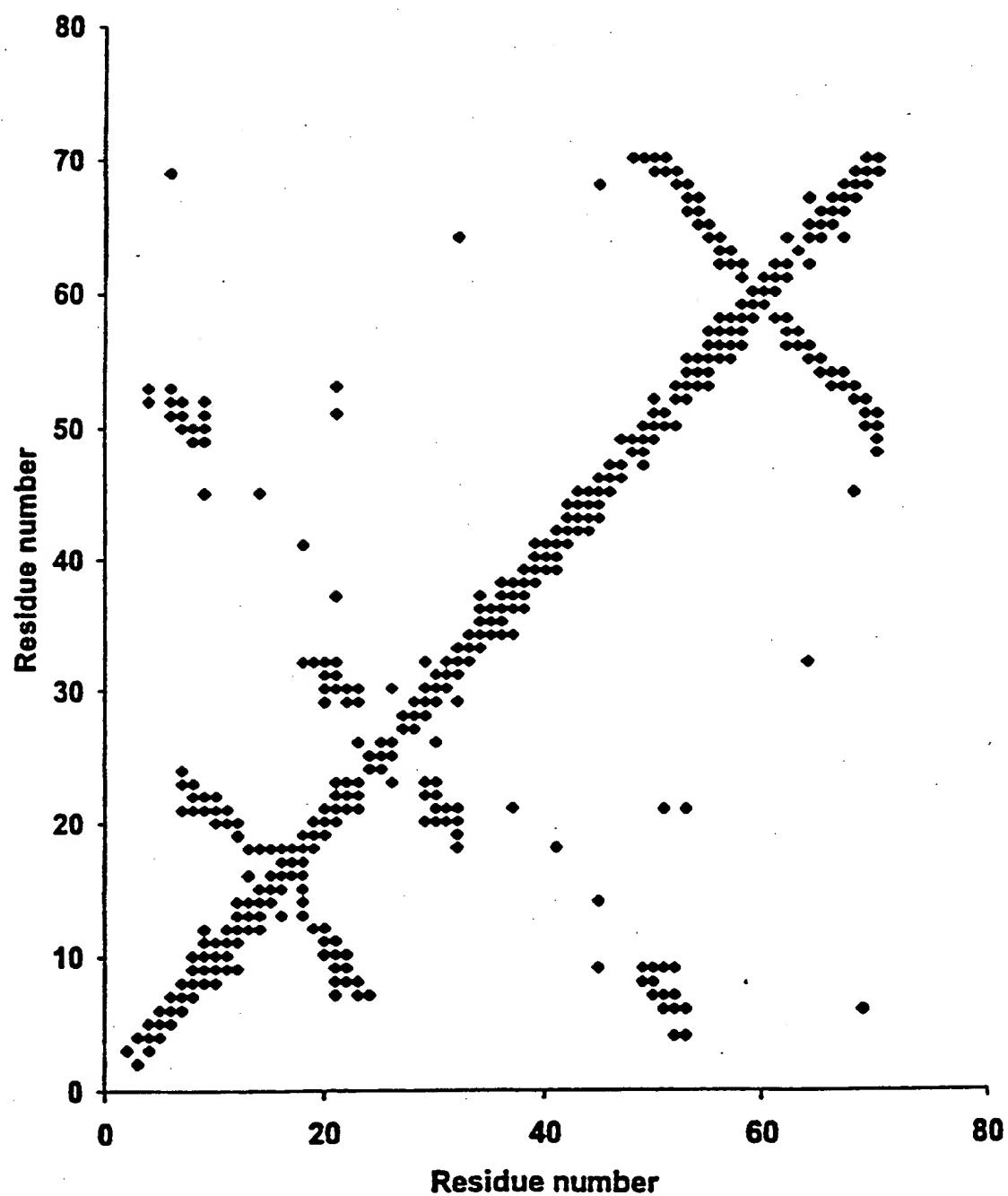


FIG. 16

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**Cspa: Automated Assignment Analysis****FIG.18**

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## Cspa: AUTOMATED STRUCTURE ANALYSIS

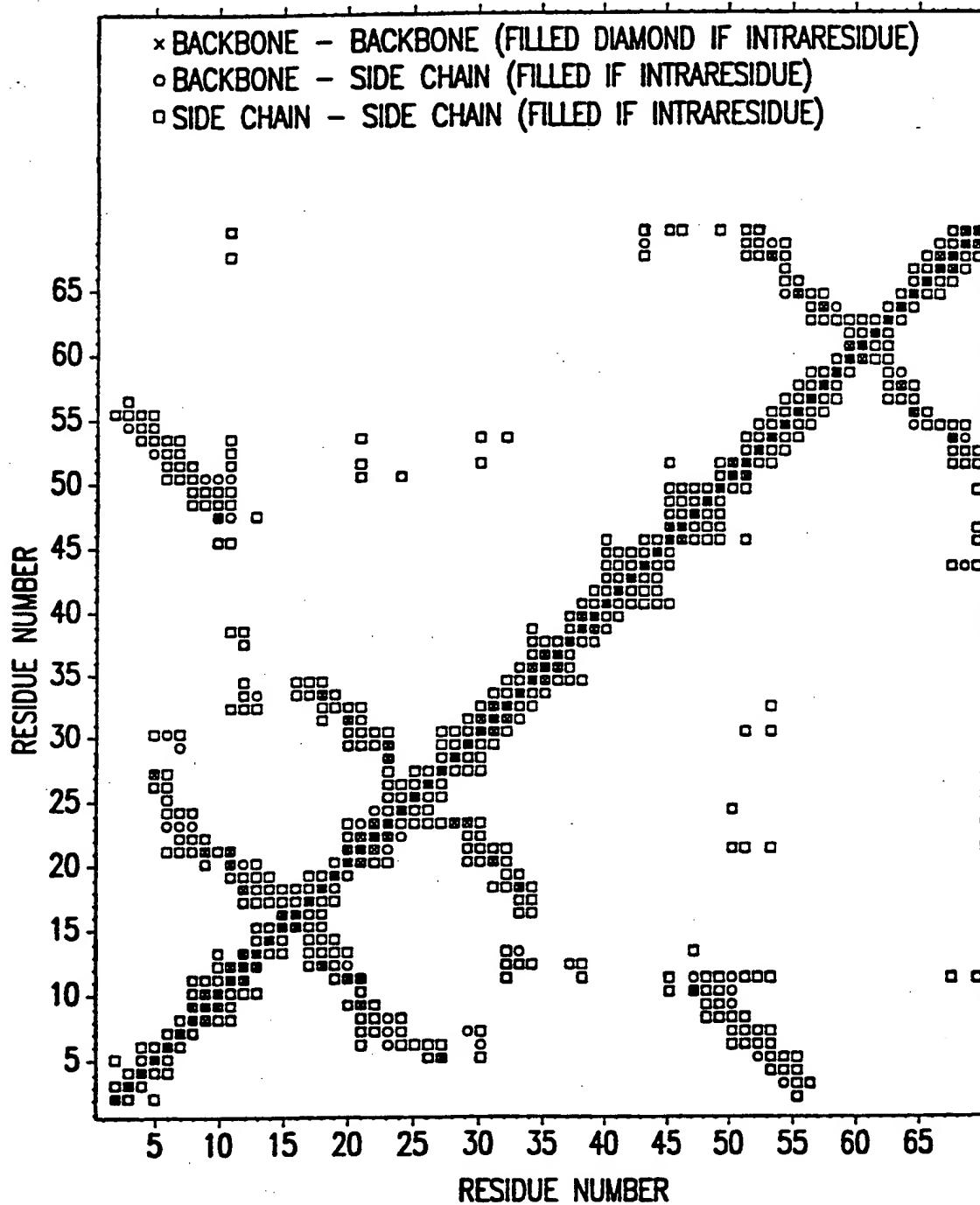


FIG. 19

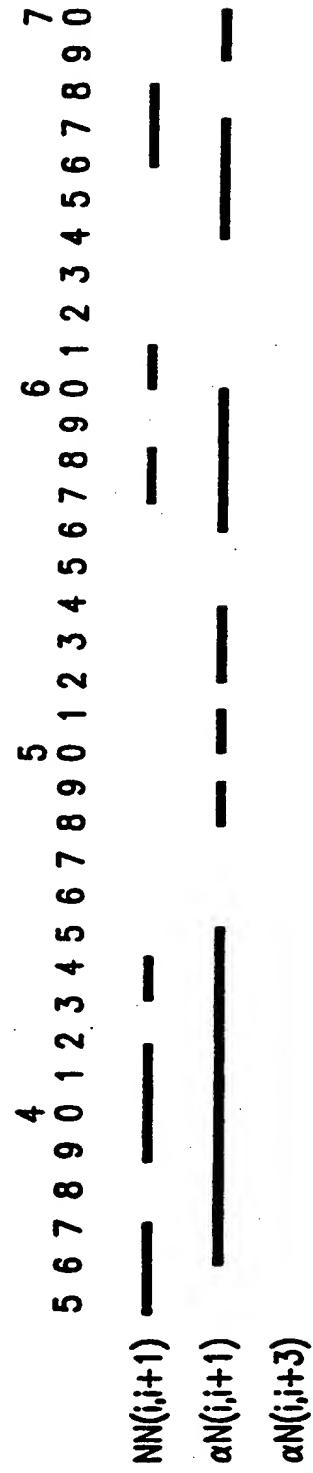
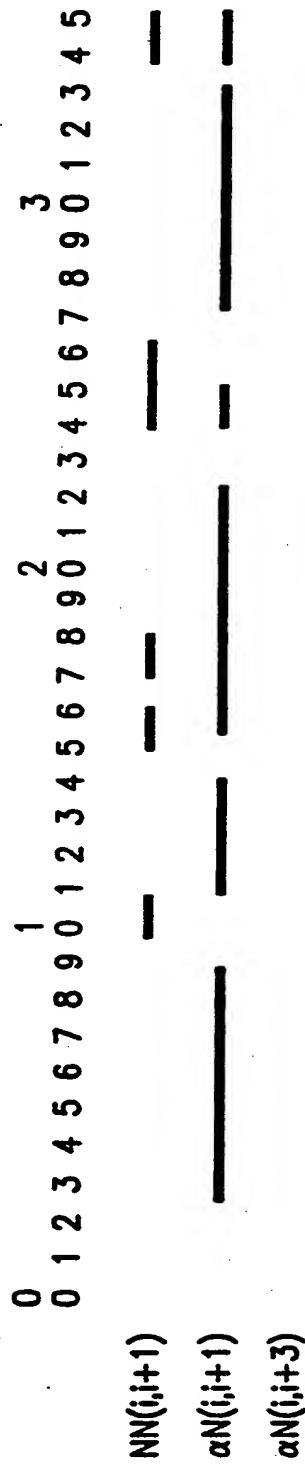
09/744002

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Cspa: AUTOMATED ANALYSIS-CONNECTIVITY MAP



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## Cspa: Manual Assignment Analysis

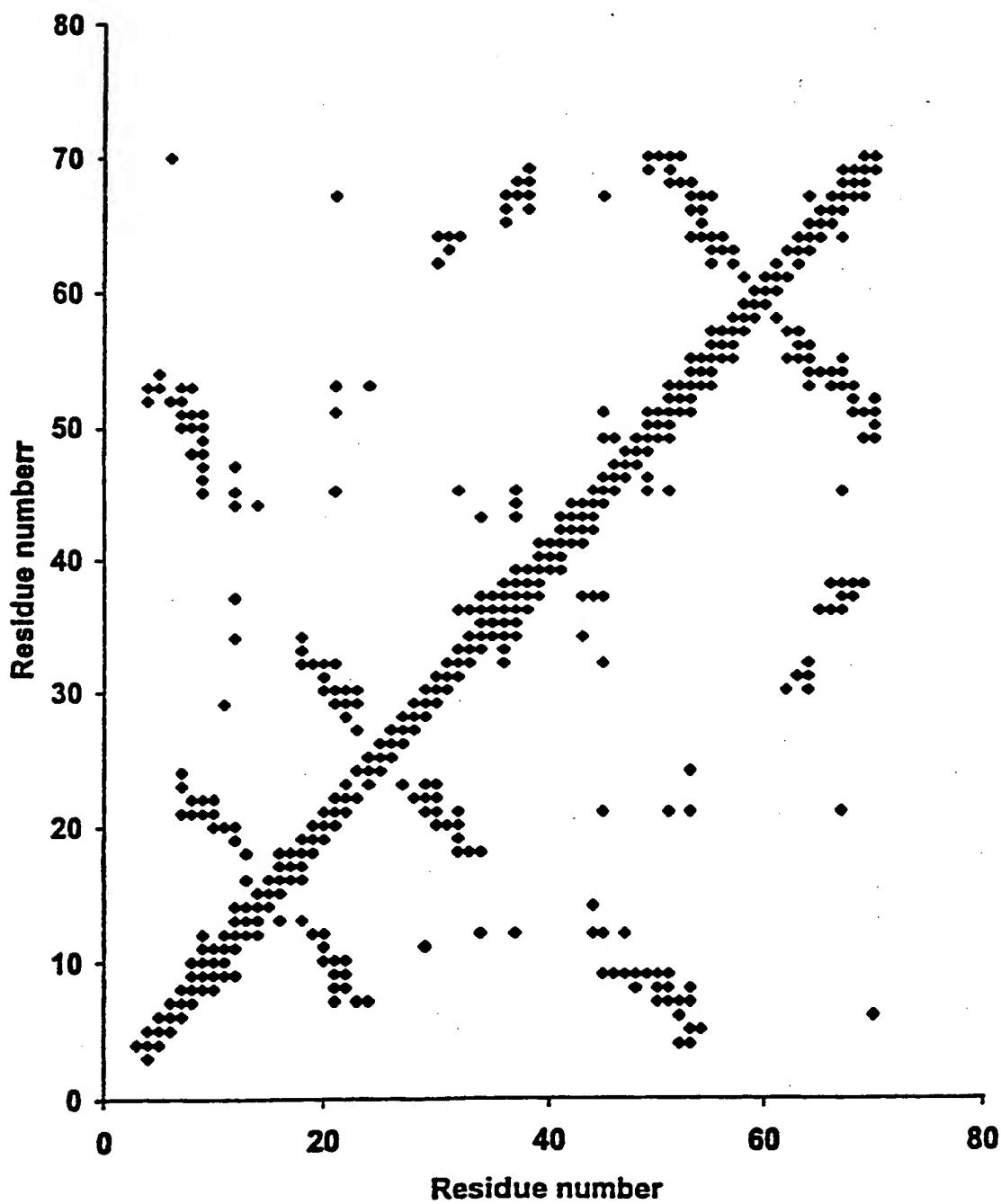


FIG.21

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## Cspa: MANUAL STRUCTURE ANALYSIS

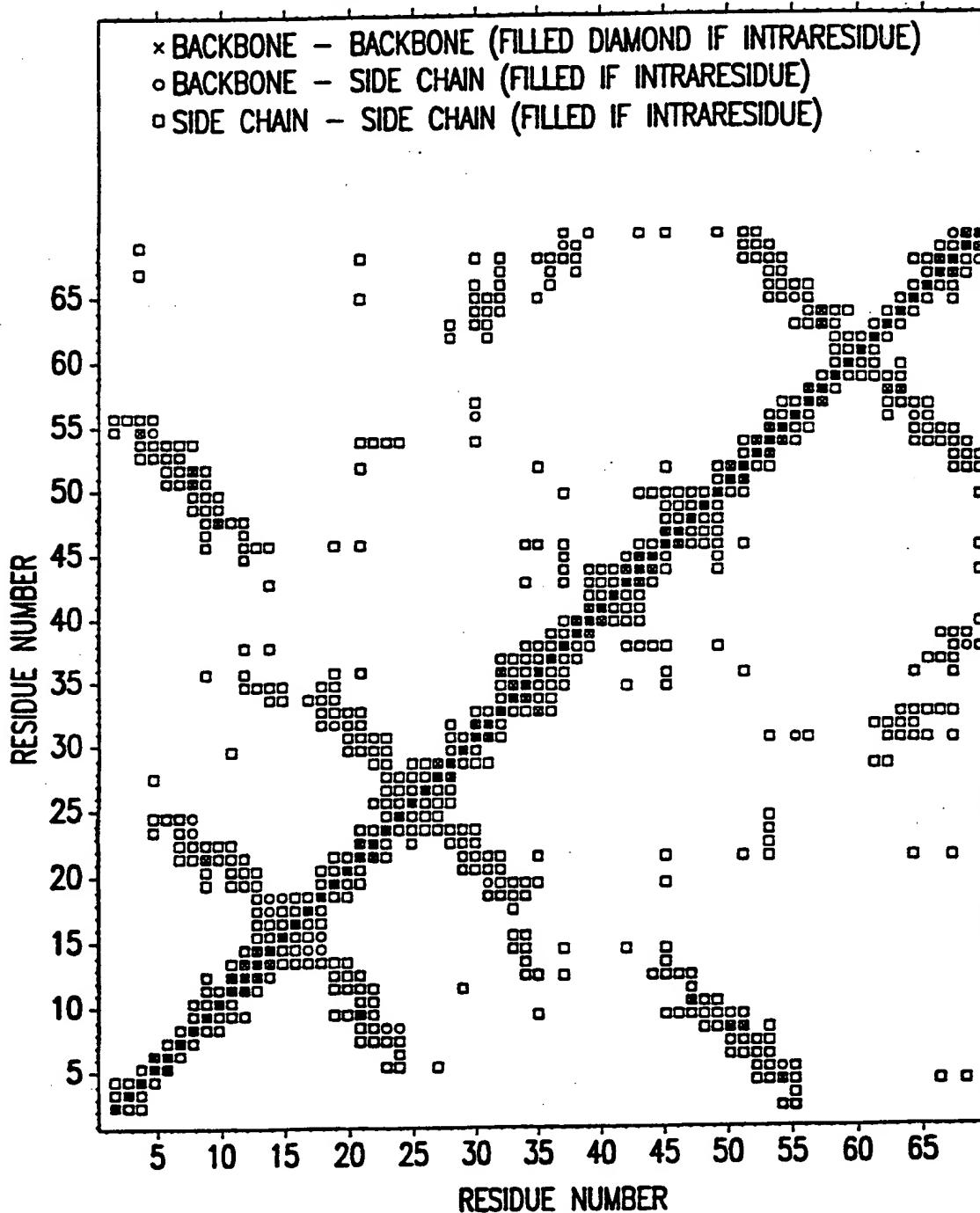


FIG.22

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CSDD: MANUAL ANALYSIS - CONNECTIVITY MAP

5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0  
 4 —  
 5 —  
 6 —  
 NN(i,i+1) — — — — — — — — — — — — — — — —  
 aNN(i,i+1) — — — — — — — — — — — — — — — —

**SUBSTITUTE SHEET (RULE 26)**

FIG. 23